



U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs  
Registration Division (7505P)  
1200 Pennsylvania Ave., N.W.  
Washington, D.C. 20460

EPA Reg. Number:

91234-194

Date of Issuance:

5/26/20

NOTICE OF PESTICIDE:

☒ Registration  
☐ Reregistration  
(under FIFRA, as amended)

Term of Issuance:

Conditional

Name of Pesticide Product:

A381.02

Name and Address of Registrant (include ZIP Code):

Atticus, LLC  
5000 CentreGreen Way, Suite 100  
Cary, NC 27513

**Note:** Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA section 3(c)(7)(A). You must comply with the following conditions:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product under FIFRA when the Agency requires all registrants of similar products to submit such data.

Signature of Approving Official:

*Emily Schmid*

Emily Schmid, Product Manager 25  
Herbicide Branch, Registration Division (7505P)

Date:

5/26/20

2. You are required to comply with the data requirements described in the DCI identified below:

- a. Acetochlor GDCI-121601-1660

You must comply with all of the data requirements within the established deadlines. If you have questions about the Generic DCI listed above, you may contact the Chemical Review Manager in the Pesticide Reevaluation Division: <http://iaspub.epa.gov/apex/pesticides/f?p=chemicalsearch:1>

3. The data requirements for storage stability and corrosion characteristics (Guidelines 830.6317 and 830.6320) are not satisfied. A one year study is required to satisfy these data requirements. You have 18 months from the date of registration to provide these data.
4. Make the following label changes before you release the product for shipment:
  - Revise the EPA Registration Number to read, “EPA Reg. No. 91234-194.”
5. Submit one copy of the final printed label for the record before you release the product for shipment.

Should you wish to add/retain a reference to the company’s website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product’s label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA’s Office of Enforcement and Compliance.

If you fail to satisfy these data requirements, EPA will consider appropriate regulatory action including, among other things, cancellation under FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

- Basic CSF dated 10/2/2019

If you have any questions, please contact Sarah Meadows by phone at 703-347-0505, or via email at [meadows.sarah@epa.gov](mailto:meadows.sarah@epa.gov).

Enclosure

**ACCEPTED**

**5/26/2020**

Under the Federal Insecticide, Fungicide  
and Rodenticide Act as amended, for the  
pesticide registered under  
EPA Reg. No. 91234-194

{Note to reviewer: [Text] in brackets denotes optional or explanatory language}  
{Note to reviewer: {Text} in braces denotes where in the final label text will appear}  
{BOOKLET FRONT PANEL LANGUAGE}

ACETOCHLOR GROUP 15 HERBICIDE

**A381.02 [™]**

*[Alternate Brand Names: Ventas, Ventas EC, Ventas 6.4 EC, Ventas 70.87% EC]*

[Contains acetochlor, the active ingredient used in Surpass® EC.]

**[For use only on field corn, production seed corn, silage corn, sweet corn and popcorn.]**

**ACTIVE INGREDIENT:** ( % by weight)

Acetochlor: 2-chloro-2'-methyl-6'-ethyl-N-ethoxymethylacetanilide .....70.87%

**OTHER INGREDIENTS:** .....29.13%

**TOTAL** .....100.0%

Contains 6.4 lb active ingredient per gallon.

**KEEP OUT OF REACH OF CHILDREN  
WARNING/AVISO**

**Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)**

See inside label booklet for First Aid, Precautionary Statements and Directions for Use.

**[A381.02™ is not manufactured, or distributed by Dow AgroSciences, seller of Surpass® EC.]**

**EPA Reg. No.: 91234-XX**

**EPA Est. No.:**

**Net Weight:**

Manufactured for:  
**Atticus, LLC**  
5000 CentreGreen Way, Suite 100  
Cary, NC 27513

## {LANGUAGE INSIDE BOOKLET}

FIRST AID	
<b>If on skin or clothing:</b>	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>If in eyes:</b>	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>If swallowed:</b>	<ul style="list-style-type: none"><li>• Call a poison control center or doctor immediately for treatment advice.</li><li>• Have person sip a glass of water if able to swallow.</li><li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact SafetyCall at <b>1-844-685-9173</b> for emergency medical treatment information.	

**For Chemical Emergency:**  
**Spill, Leak, Fire, Exposure, or Accident,**  
**Call CHEMTREC Day or Night**  
**Within USA and Canada: 1-800-424-9300 or +1 703-527-3887 (collect calls accepted)**

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

#### WARNING/AVISO

Causes skin irritation. Do not get on skin or on clothing. Harmful if swallowed. Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

#### Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure
- Chemical-resistant apron when cleaning equipment, mixing, or loading

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

### **User Safety Recommendations**

#### **Users should:**

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

### **Physical and Chemical Hazards**

Do not mix or allow contact with an oxidizing agent, as a hazardous chemical reaction could occur.

### **Environmental Hazards**

This product is toxic to fish. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

This chemical demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the groundwater is shallow, may result in groundwater contamination.

Acetochlor has properties that may result in surface water contamination via dissolved runoff erosion. Practices should be followed to minimize the potential for dissolved runoff and/or runoff erosion.

## **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Read all Directions for Use carefully before applying.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

**Exception:** If the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water.

- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves made of any waterproof material
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure

### PRODUCT INFORMATION

**A381.02** herbicide is intended for preplant, preemergence, or early postemergence use in corn. Use of this product in corn is limited to field corn, production seed corn, silage corn, sweet corn and popcorn.

Do not apply this product to any crop other than corn.

**A381.02** is a unique combination of the herbicide acetochlor and the antidote or safener dichlormid.

While the acetochlor provides weed control, the dichlormid safens corn against herbicide injury. **A381.02** may be applied to the surface or incorporated into the top 1 to 2 inch layer of soil. It is specified for control alone, or in tank mix combinations as indicated, for the weeds listed in the Target Weeds section of these use directions. **A381.02** controls weeds by interfering with normal germination and seedling development. **A381.02** will not control established or germinated weeds present at application.

### Use Restrictions

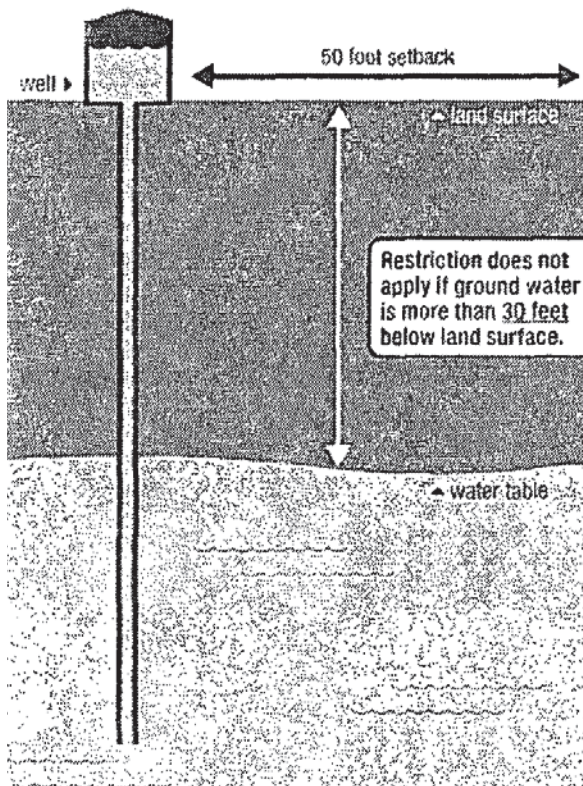
- **Not for Sale, Sale Into, Distribution and/or Use in Nassau and Suffolk Counties of New York State.**
- On the following soil types, do not apply this product within 50 feet of any well where the depth to groundwater is 30 feet or less: sands with less than 3% organic matter; loamy sands with less than 2% organic matter; or sandy loams with less than 1 percent organic matter.. See the figure for additional clarification.

Restriction does not apply for areas  
more than 50 feet from a well.

The acetochlor soil restriction is as follows:

On the following soil types, do not apply acetochlor within 50 feet of any well where the depth to ground water is 30 feet or less:

- sands with less than 3 percent organic matter;
- loamy sands with less than 2 percent organic matter; or
- sandy loams with less than 1 percent organic matter.



- Do not apply this product using aerial application equipment.
- **Chemigation:** Do not apply this product through any type of irrigation system.
- Do not use flood irrigation to apply or incorporate this product.
- This product may not be mixed or loaded within 50 feet of any wells including abandoned wells and drainage wells, sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas.
- Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or washwater, and rainwater that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-



contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specified minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

- Product must be used in a manner that will prevent back siphoning in wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.
- Do not apply under conditions that favor runoff or wind erosion of soil containing this product to nontarget areas. To prevent off-site movement due to runoff or wind erosion:
  - Avoid treating powdery dry or light sandy soils when conditions are favorable for wind erosion. Under these conditions, the soil surface must first be settled by rainfall or irrigation.
  - Do not apply to impervious substrates such as paved or highly compacted surfaces or frozen or snow covered soils.
  - Do not use tailwater from the first flood or furrow irrigation of treated fields to treat non-target crops unless at least 1/2 inch of rainfall has occurred between application and the first irrigation.
- Do not apply when wind conditions favor drift to non-target sites. To minimize spray drift to non-target areas:
  - Use low pressure application equipment capable of producing a large droplet spray.
  - Do not use nozzles that produce a fine droplet spray.
  - Minimize drift by using sufficient spray volume to ensure adequate coverage with large droplet size sprays.
  - Keep ground-driven spray boom as low as possible above the target surface.
  - Make application when the wind velocity favors on-target product deposition (approximately 3 to 10 mph). Do not apply when wind velocity exceeds 15 mph. Avoid application when gusts approach 15 mph.
- Low humidity and high temperatures increase the likelihood of spray drift to sensitive areas. Avoid spraying during conditions of low humidity and/or high temperatures. Do not apply during inversion conditions.
- **Maximum Acetochlor Application Rates Per Calendar Year:**  
Maximum annual acetochlor broadcast application rates for corn must not exceed 3.0 pounds active ingredient (3.75 pints **A381.02**) per acre. Note: One pint per acre **A381.02** delivers 0.80 pound active ingredient acetochlor per acre.

#### Rotational Crop Restrictions:

When tank mixing with other herbicides, follow the most restrictive crop rotation guidelines on the label of each product used. The following rotational crops may be planted as indicated:

Rotational Crop	Timing or Interval
Corn (1)	Anytime - 0 months after application
alfalfa, barley, buckwheat, clover, dry beans (2), guar, kudzu, lentil, lespedeza, lupin (4), millet, pearl or proso, oats, pea (5), potatoes, rye, sorghum, soybeans, sugar beets, sunflower, trefoil, tobacco, triticale, vetch, wild rice	Spring following application (3)
wheat	4 months after application

Numbers within parentheses (-) in the table refer to Specific Rotational Crop Requirements below.



1. If crop treated with **A381.02** is lost, corn may be replanted immediately. Do not make a second application of **A381.02**.
2. Dry beans includes: adzuki, kidney, lima, navy, pinto
3. Approved rotation crops list does not include any species of succulent beans and peas
4. Lupin includes: grain, white, white sweet
5. Pea includes: blackeyed, chick, cow, Crowder, field, pigeon, Southern

#### **Weed Resistance Management Guidelines**

For resistance management, **A381.02** is a Group 15 herbicide. Any weed population may contain or develop plants naturally resistant to **A381.02** and other Group 15 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Appropriate resistance-management strategies should be followed.

Suspected herbicide-resistant weeds may be identified by these indicators:

- Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
- A spreading patch of non-controlled plants of a particular weed species; and
- Surviving plants mixed with controlled individuals of the same species.

To delay herbicide resistance take one or more of the following steps:

- Rotate the use of **A381.02** or other Group 15 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method such as hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.

- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.

Report any incidence of non-performance of this product against a particular weed species to your Atticus, LLC retailer, representative or call 984-465-4754. If resistance is suspected, treat weed escapes with an herbicide having a different mechanism of action and/or use non-chemical means to remove escapes, as practical, with the goal of preventing further seed production.

### **Best Management Practices**

Proactively implementing diversified weed control strategies to minimize selection for weed populations resistant to one or more herbicides is recommended. A diversified weed management program may include the use of multiple herbicides with different modes of action and overlapping weed spectrum with or without tillage operations and/or other cultural practices. Research has demonstrated that using full labeled rates and following directions for use is important to delay the selection for resistance. Scouting after a herbicide application is important because it can facilitate the early identification of weed shifts and/or weed resistance and thus provide direction on future weed management practices. One of the best ways to contain resistant populations is to implement measures to avoid allowing weeds to reproduce by seed or to proliferate vegetatively. Cleaning equipment between sites and avoiding movement of plant material between sites will greatly aid in retarding the spread of resistant weed seed.

### **General principles of herbicide resistance management**

1. Apply integrated weed management practices. Use multiple herbicide modes-of-action with overlapping weed spectrums in rotation, sequences, or mixtures.
2. Use the full recommended herbicide rate and proper application timing for the hardest to control weed species present in the field.
3. Scout fields after herbicide application to ensure control has been achieved. Avoid allowing weeds to reproduce by seed or to proliferate vegetatively.
4. Monitor site and clean equipment between sites.

### **For annual cropping situations also consider the following:**

- Start with a clean field and control weeds early by using a burndown treatment or tillage in combination with a preemergence residual herbicide as appropriate.
- Use cultural practices such as cultivation and crop rotation, where appropriate.
- Use good agronomic principles that enhance crop competitiveness
- Use new commercial seed that is as free of weed seed as possible.

**Report any incidence of repeated non-performance of this product on a particular weed to your Atticus, LLC representative, local retailer, or county extension agent.**

### **Application Directions - Corn**

#### **Carriers and Spray Volume**

**Liquids:** Either water or liquid fertilizers such as solutions, slurries, or suspensions may be used as liquid carriers. If fluid fertilizers are used, a physical compatibility with these must be done before combining in the spray tank. See Appendix I for details of the compatibility testing procedure. Even if **A381.02** is physically compatible with a fluid fertilizer, constant agitation is necessary to maintain a uniform mixture during application.

Apply in a minimum broadcast spray volume of 10 gallons per acre using boom equipment for ground applications. Use low pressure nozzles designed for application of herbicides. Use sufficient operating pressure to produce the desired spray pattern for the nozzle (15 to 40 psi) and follow manufacturer's instructions for nozzle spacing and operating height to ensure uniform spray distribution at the soil surface. Use 50-mesh or coarser screens, if needed.

**Dry Bulk Fertilizer: A381.02** may be impregnated on dry bulk fertilizer and applied as the fertilizer is spread. Use at least 200 lb of dry bulk fertilizer per acre. See Appendix II for more details including which fertilizers are compatible.

### **Adding to Spray Tank**

The spray tank must be clean, thoroughly rinsed, and decontaminated before adding either **A381.02** alone or in tank mix combinations. If water is used as the carrier, use clean water. All return lines to the spray tank must discharge below the liquid level.

**Used Alone:** If **A381.02** is used alone, add the specified amount to the spray tank before the tank is half filled, then add the rest of the water or fluid fertilizer. Provide sufficient agitation to ensure thorough mixing and to maintain a uniform spray mixture during application.

**Tank Mixed:** If a tank mixture is used, it is recommended that a small-scale test of compatibility be done before actual tank mixing. See Appendix I for details on the procedure for such a test.

### **Water Carrier**

Allow time for complete dispersion/mixing before adding another product to the spray mixture. Add products to the tank mixture in the following order:

- To start, add one-half of the required amount of water to the spray tank. Begin agitation.
- Products in water soluble packaging. Important: Allow time for complete dispersion.
- Wettable powders or dry flowables (slurry if specified by tank mix product label)
- Liquid flowables
- **A381.02** or other emulsifiable concentrates
- Suspension concentrates
- Urea ammonium nitrate (UAN) or ammonium sulphate (AMS), if required
- Compatibility agent if needed
- Soluble liquids such as glyphosate, paraquat, 2,4-D amine
- Crop oil concentrate (COG) or nonionic surfactant (NIS), if required
- Finish filling spray tank to required spray volume

### **Liquid Fertilizer Carrier**

Allow time for complete dispersion/mixing before adding another product to the spray mixture. Add products to the tank mixture in the following order:

- To start, add one-half of the required amount of liquid fertilizer to the spray tank. Begin agitation.
- Compatibility agent if needed
- Products in water soluble packaging. Important: Products in water soluble packaging must be premixed with water (slurried) prior to addition to the spray tank.
- Wettable powders or dry flowables (slurry if specified by-tank mix product label)
- Liquid flowables
- **A381.02** or other emulsifiable concentrates
- Suspension concentrates
- Ammonium sulphate (AMS), if tank mixing with glyphosate.
- Soluble liquids such as glyphosate, paraquat, 2,4-D amine

- Crop oil concentrate (COG) or nonionic surfactant (NIS), if required
- Finish filling spray tank to required spray volume.

**Note:** For all tank mixtures, maintain agitation during mixing and throughout application to ensure spray mixture remains uniformly suspended.

### **Application Timing and Methods**

For the optimum period of effective weed control during the time most critical to corn production, preplant application of **A381.02** herbicide should occur as close as possible to planting. Preemergence applications should occur as close as possible to planting, but prior to weed emergence. Postemergence applications should occur prior to weed emergence or in tank mix combination with a product that controls emerged weeds. **Note:** Do not apply **A381.02** to sweet corn as an early postemergence application.

**Early Preplant:** On medium and fine textured soils (see Table 1) **A381.02** and certain tank mixtures may be applied up to 30 days before planting.

**Preplant Incorporation:** **A381.02** and certain tank mixes may be mechanically incorporated into the top 2 inches of the soil with field cultivators, discs, or spring tooth harrows any time up to 14 days prior to planting. Improper incorporation, excessive crop residues, or poor soil tilth may result in erratic, streaked, or otherwise unsatisfactory weed control. Do not mix **A381.02** deeper than 2 inches into the soil and avoid moving or shaping soil after incorporation.

**Preemergence Surface:** **A381.02** and certain tank mixes may be applied to the soil surface as a broadcast or banded application. Precipitation or sprinkler irrigation of at least 0.25 inch is required to bring **A381.02** into contact with germinating seeds. If rain or sprinkler irrigation does not occur within 7 days after application, weed control may be improved by using a rotary hoe or similar incorporate the herbicide. Incorporation equipment should be run at a shallow depth to avoid disturbance of germinating corn seed. Erratic weed control resulting from exposure of untreated soil surface soil is moved or reshaped after incorporation.

**Postplant-Preemergence:** **A381.02** may be applied after planting but prior to corn emergence. If rain or sprinkler irrigation does not occur within 7 days after application, weed control may be improved by using a rotary hoe or similar equipment to shallowly incorporate the herbicide. Incorporation equipment should be run at a shallow depth to prevent disturbance of the germinating corn. Erratic weed control resulting from exposure of untreated soil may occur if surface soil is moved or reshaped during incorporation.

**Banding-Preemergence:** **A381.02** may be applied in a 10- to 14-inch band after corn planting but prior to emergence. If rain or sprinkler irrigation does not occur within 7 days after application, weed control may be improved by shallow incorporation using a rotary hoe or similar equipment. Do not disturb the germinating corn seed. Erratic weed control resulting from exposure of untreated soil may occur if surface soil is moved or reshaped during incorporation.

**Early Postemergence:** **A381.02** may be applied early postemergence to corn up to 11 inches tall. Application must be made prior to weed seedling emergence or in a tank mixture that controls the emerged weeds. Read and follow restrictions and directions on tank mix product labels.

**Sprinkler Irrigation:** **Do not apply A381.02 by sprinkler irrigation.** Use a sprinkler system only to incorporate **A381.02** after application. After **A381.02** has been applied, a sprinkler irrigation system set to deliver 0.25 to 0.75 inch of water per acre may be used to incorporate the product. Using more than 0.75 inch of water could result in reduced performance. On sandy soil low in organic matter, use no more than 0.5 inch of water. Do not use flood irrigation to apply or incorporate **A381.02**.

**Fall Application - For use in IA; IL (North of Route 136); NE (North of Route 20); MN; ND; SD; WI:**

Following soybean harvest, apply to soybean stubble after October 15, when the sustained soil temperature at 4-inch depth is less than 50°F, but before ground freezes. Use on medium and fine textured soils with greater than 2.5% organic matter. Only corn may be planted the following spring.

Ground may be tilled before or after application. Do not exceed 2-inch incorporation depth if tilled after application.

If a spring application is made, the total rate of the fall plus spring application must not exceed the maximum labeled rate for corn grown on that soil.

**Cultivation**

Cultivation should be delayed as long as possible. If weeds develop, a shallow cultivation or rotary hoeing will generally result in improved weed control. If **A381.02** was incorporated, cultivate to a depth of less than half the depth of incorporation.

If cultivation is necessary due to soil crusting or compaction, adjust equipment to run shallow and minimize soil movement. This will decrease the possibility of diluting or moving the herbicide from the weed control zone.

**Soil Texture and Organic Matter**

The use rate of **A381.02** is determined by a combination of two factors, soil texture and organic matter which must be determined prior to application. Different soil textures are grouped into three textural classes (coarse, medium, and fine) as outlined in Table 1. Soil texture and organic matter content of soil may be determined from soil survey information and/or by laboratory analysis and must be known in order to select the proper rate from Table 2.

Coarse	Medium	Fine
Sand Loamy Sand Sandy Loam	Loam Silt Silt Loam Sandy Clay Loam	Silty Clay Loam Silty Clay Sandy Clay Sandy Clay Loam Clay Loam Clay

**Use Rates in Conventional Tillage Systems**

**Table 2: Use Rates for A381.02 by Soil Texture and Organic Matter Content in Conventional Tillage Systems.**

The following use rates are for preplant incorporated, preemergence, and early postemergence applications (see Application Timing and Methods). Consult Table 3 if reduced or no-till applications are made or application is made more than 14 days prior to planting under conventional tillage.

Soil Texture	Soil Organic Matter Content		
	Less than 3%	3% or Greater	Greater than 7%
Coarse	1.5 – 2.25 pt/acre	1.5 – 2.5 pt/acre	2 – 3 pt/acre
Medium	1.5 – 2.5 pt/acre	1.5 – 2.5 pt/acre	2.5 – 3.75 pt/acre
Fine	1.5 – 2.75 pt/acre	2 – 3 pt/acre	3 – 3.75 pt/acre

**Rate Ranges:** If the weed infestation is light and/or organic matter is in the lower end of the range, use a rate at the lower end of the rate range for the soil texture and organic matter content. If the weed infestation is heavier and/or organic matter is in the upper end of the range, use the higher rates in the rate range for the soil texture and organic matter.

### Use Rates for Reduced Tillage Systems or Early Preplant Applications in Conventional Tillage Systems

**A381.02** may be used in reduced and no-till systems. Application may occur up to 30 days prior to planting or after planting but before corn emergence. Optimal weed control will be obtained when applications are made as close as possible to planting but before the weeds emerge. In reduced or no-till systems, it is recommended that a burndown herbicide such as paraquat (Gramoxone (EPA Reg. No. 100-1431)) or glyphosate (Glyphomax (EPA Reg. No. 62719-323), Roundup or Touchdown) or 2,4-D be tank mixed with **A381.02** if emerged weeds are present at application.

**Table 3: Use Rates for A381.02 by Soil Texture and Organic Matter Content in Reduced and No- Till Systems or Conventional Tillage Systems when Applications are made more than 14 days Prior to Planting.<sup>1</sup>**

Soil Texture	Soil Organic Matter Content		
	Less Than 3%	3% or Greater	Greater Than 7%
Coarse	2 pt/acre	2 pt/acre	2 -3 pt/acre
Medium	2 – 2.5 pt/acre	2.5 pt/acre	2.5 – 3.75 pt/acre
Fine	3 pt/acre	3 pt/acre	3 – 3.75 pt/acre

<sup>1</sup>Rates are for single applications. Split applications of **A381.02** may be used; apply at least 60% of the specified rate up to 30 days before planting and the remaining balance, up to 40%, at planting

### Band Applications

This product may be applied as a band treatment. Use the following formulas below to determine the appropriate rate and volume per treated acre.

Band width in inches

----- X Broadcast rate per acre = Band rate per treated acre

Row width in inches

Band width in inches

----- X Broadcast volume per acre = Band volume per treated acre

### Weeds Controlled

**A381.02**, applied as directed in this label, will provide control or partial control of the weeds listed in Table 4. Partially controlled weeds will be severely stunted, or experience reduced height, vigor, or population compared to untreated areas. Depending on the infestation level or density, a follow-up treatment with another herbicide registered for use on corn may be needed to provide complete control.

Additional weeds may be controlled with tank mixes. See the Tank Mix Combinations section for specified tank mix combinations and the additional weeds controlled.

**Table 4: Weeds Controlled or Partially Controlled by A381.02 at Specified Use Rates.**

Grasses and Sedges	C = Control PC = Partial Control	Broadleaves	C = Control PC = Partial Control
Barnyard grass	C	Beggarweed, Florida	C
Crabgrass spp.	C	Carpetweed	C
Crowfootgrass	C	Galinsoga	C
Cupgrass, prairie	C	Kochia	PC
Cupgrass, southwestern	C	Lambsquarters, common (2)	
Cupgrass, woolly	PC	Nightshade, black	C

Foxtail, bristly	C	Nightshade, hairy	C
Foxtail, giant	C	Pigweed	C
Foxtail, green	C	Purslane, common	C
Foxtail, robust (purple, white)	C	Pusley, Florida	C
Foxtail, yellow	C	Ragweed, common	C
Goosegrass	C	Sida, prickly	C
Johnsongrass, seedling	PC	Smartweed spp.	C
Millet, foxtail	C	Waterhemp, tall	C
Millet, wild proso	PC	Waterhemp, common	C
Nutsedge, yellow (1)	C		
Panicum, browntop	C		
Panicum, fall	C		
Panicum, Texas (3)	C		
Rice, red	C		
Sandbur, field	PC		
Shattercane	PC		
Signalgrass, broadleaf (3)	C		
Sprangletop, red	C		
Witchgrass	C		

1. Yellow nutsedge requires a minimum of 2.5 pints per acre. Incorporation will improve control
2. Light to moderate infestations will be controlled. Heavy infestations may require a tank mixture or, sequential herbicide.
3. Best control is achieved when **A381.02** is applied within 5 days of planting and rainfall occurs shortly after application or mechanical incorporation is used to activate the herbicide. If it does not rain within 7 days, shallow cultivation will enhance activity. Excessive rainfall after application may reduce control. Under adverse weather conditions and/or heavy infestations, a cultivation or follow-up herbicide may be needed.

### Tank Mix Combinations

Additional weeds may be controlled with tank mixes of **A381.02** and other products labeled for use on field corn, production seed corn, silage corn, sweet corn and popcorn. Tank mix combinations may be used in conventional, reduced, or no-till systems and may be applied by the same methods and at the same application timing as **A381.02** unless otherwise specified in the tank mix product label. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

**A381.02** may be tank mixed with any other herbicide labeled for use on corn provided the compatibility of the tank mix is verified by a jar test and tank mixing with **A381.02** is not prohibited by the label of the tank mix product. The compatibility of a tank mixture can be determined by mixing the ingredients of the herbicide mixture in their relative proportions in a glass jar as described for fluid fertilizer mixtures in Appendix I by substituting water for fluid fertilizer. Refer to the label of the tank mix product for applicable use directions, precautions and limitations, including additional weeds controlled. Do not exceed application rates on the respective product labels. Do not tank mix with another pesticide product that contains the same active ingredient as this product unless the label of either tank mix partner specifies the maximum dosages that may be used.

**When tank mixing A381.02 with atrazine, do not exceed the maximum allowable rate of atrazine in your county or state. In some atrazine management areas, atrazine is more restricted. Consult your county extension office or state university for further information.**



For all applications, do not exceed the maximum rate of acetochlor as specified in the Maximum Acetochlor Application Rate Per Calendar Year section of this label.

### Use of Spray Adjuvants

**A381.02** is a preemergence herbicide for which spray adjuvants have little or no influence on performance. However, several herbicides used in tank mixtures with **A381.02** require use of adjuvants to aid in the burndown of emerged weeds. Use only those adjuvants recommended on the label of the tank mix product and approved for use in growing crops. Surfactants and/or low rate liquid fertilizers (28%, 30% or 32% DAN) or ammonium sulfate (AMS) adjuvants may be used with tank mixes applied preplant or preemergence to the crop.

### Preemergence Tank Mix Combinations

#### Conventional Tillage (A381.02 Plus):

Tank Mix Herbicide†	Comments
Atrazine 4L (atrazine, EPA Reg. No. 34704-69)	<ul style="list-style-type: none"> <li>May be applied preplant surface, preplant incorporated, preemergence. If emerged weeds are greater than 1.5 inches tall at the time of application, add an appropriate postemergence herbicide</li> <li>Provides control or partial control of cocklebur, giant ragweed, ground j. cherry (spp), jimsonweed, kochia, morningglory (spp), mustards sicklepod and velvetleaf</li> <li>Use when there is heavy broadleaf weed pressure</li> </ul>
Balance Pro (isoxaflutole, EPA Reg. No. 264-600)	<ul style="list-style-type: none"> <li>Not labeled in all states; please refer to the label for Balance Pro (isoxaflutole, EPA Reg. No. 264-600) for applicable directions for use, geographic and other restrictions</li> <li>For use in field corn only</li> <li>Refer to the use rates section for minimum use rates for <b>A381.02</b></li> </ul>
Hornet WDG (flumetsulam and clopyralid potassium, EPA Reg. No. 5481-678)	<ul style="list-style-type: none"> <li>Tank mix with 4-5 oz/acre of Hornet® WDG (flumetsulam and clopyralid potassium, EPA Reg. No. 5481-678) herbicide to provide consistent control of velvetleaf, lambsquarters, pigweed species, waterhemp and triazine resistant varieties of these species. Also provides improved control of cocklebur, common ragweed, giant ragweed, common sunflower and jimsonweed</li> </ul>
Princep 4L (simazine, EPA Reg. No. 100-526)	<ul style="list-style-type: none"> <li>Provides improve crabgrass or fall panicum control</li> </ul>
Python WDG (flumetsulam, EPA Reg. No. 5481-677)	<ul style="list-style-type: none"> <li>Tank mix with 0.8 - 1.33 oz/acre of Python® WDG (flumetsulam, EPA Reg. No. 5481-677) herbicide to provide consistent control of velvetleaf, lambsquarters, pigweed species, waterhemp and triazine resistant varieties of these species</li> </ul>

†Formulations that are not listed may be used. Perform a compatibility test and check the label of the tank mix product label for application rates, applicable use directions, precautions and limitations.

#### Reduced or No-Tillage Corn (A381.02 Plus):

Tank Mix Herbicide†	Comments
Atrazine 4L (atrazine, EPA Reg. No. 34704-69)	<ul style="list-style-type: none"> <li>Provides control or partial control of cocklebur, giant ragweed, ground cherry (spp), jimsonweed, kochia, morningglory (spp), mustards, sicklepod and velvetleaf</li> <li>If emerged weeds are greater than 1.5 inches tall at the time of application, add an appropriate postemergence herbicide</li> <li>Use in areas with heavy broadleaf weed pressure</li> </ul>

Balance Pro (isoxaflutole, EPA Reg. No. 264-600)	<ul style="list-style-type: none"> <li>Not labeled in all states; refer to the label for Balance Pro (isoxaflutole, EPA Reg. No. 264-600) label for precautionary statements, directions for use, geographic and other use restrictions</li> <li>For use in field corn only</li> <li>Refer to use rate section for minimum use rates for <b>A381.02</b></li> </ul>
Banvel/Clarity Marksman (dicamba, dimethylamine salt, EPA Reg. No. 66330-276)/ (ethaneperoxoic acid, hydrogen peroxide, EPA Reg. No. 65402-3)	<ul style="list-style-type: none"> <li>Apply preplant or preemergence in reduced/no-till systems for burndown of existing weeds</li> </ul>
Glyphomax Plus, Durango (glyphosate-isopropylammonium, EPA Reg. No. 62719-517), Roundup WeatherMax (glycine, N-(phosphonomethyl)-potassium salt, EPA Reg. No. 524-537), Touchdown (Glysophate, EPA Reg. No. 100-1117)	<ul style="list-style-type: none"> <li>Apply preplant for burndown of existing weeds</li> <li>Weeds less than 6 inches tall are easiest to control with burndown herbicides applied in combination with <b>A381.02</b></li> <li>Always add ammonium sulphate (AMS) to tank mixes prior to addition of glyphosate (8.5 to 17 lb per 100 gal of spray)</li> </ul>
Gramoxone Max	<ul style="list-style-type: none"> <li>Control annuals, suppress perennials</li> </ul>
Pendimax* herbicide/ Prowl (pendimethalin, EPA Reg. No. 241-337)	<ul style="list-style-type: none"> <li>Preemergence to early postemergence to corn up to 3 inches tall, but before weeds are more than 1 inch tall</li> </ul>
Princep 4L (simazine, EPA Reg. No. 100-526)	<ul style="list-style-type: none"> <li>Provides improved control of crabgrass and fall panicum</li> </ul>
2,4-D	<ul style="list-style-type: none"> <li>Burndown existing weeds</li> </ul>

†Formulations that are not listed may be used. Perform a compatibility test and check the product label for application rates, applicable use directions, precautions and limitations.

### Postemergence Tank Mix Combinations

**A381.02** may be applied before, with, or following the use of one or more of the following herbicides.

Accent (nicosulfuron, EPA Reg. No. 352-560), Accent Gold (clopyralid, flumetsulam, nicosulfuron, rimsulfuron, EPA Reg. No. 352-593), Aim (carfentrazone-ethyl, EPA Reg. No. 279-3241), atrazine, Banvel (dicamba, dimethylamine salt, EPA Reg. No. 66330-276), Basis (rimsulfuron and thifensulfuron methyl, EPA Reg. No. 352-571), Basis Gold (atrazine, nicosulfuron, rimsulfuron, EPA Reg. No. 352-585), Beacon (primisulfuron-methyl, EPA Reg. No. 100-705), Bladex (atrazine and cyanazine, EPA Reg. No. NE860005), Buctril (bromoxynil octanoate, EPA Reg. No. 264-437), Buctril/atrazine (atrazine and octanoic acid ester of bromoxynil, EPA Reg. No. 264-477), Clarity (ethaneperoxoic acid, hydrogen peroxide, EPA Reg. No. 65402-3), Distinct (dicamba, sodium salt and diflufenzopyr-sodium, EPA Reg. No. 7969-150), Hornet WDG (flumetsulam and clopyralid potassium, EPA Reg. No. 5481-678), Liberty (glufosinate, EPA

Reg. No. 7969-447), Lightning (imazapyr and imazethapyr, EPA Reg. No. 241-377), Marksman (atrazine and dicamba, potassium salt, EPA Reg. No. 7969-136), Peak (prosulfuron, EPA Reg. No. 100-763), Permit (EPA Reg. No. 81880-2-10163), Princep, Prowl (10088-76-53537), Pendimax Pursuit (imazethapyr, ammonium salt, EPA Reg. No. 241-310), Shotgun (atrazine and 2,4-D, 2-ethylhexyl ester, EPA Reg. No. 34704-728), Spirit (primisulfuron-methyl and prosulfuron, EPA Reg. No. 100-911) and Steadfast (nicosulfuron and rimsulfuron, EPA Reg. No. 352-608). Refer to the label of the tank mix product for applicable directions for use, precautions and restrictions, and a list of weeds controlled. **A381.02** may be tank mixed with any product approved for use on corn unless it is prohibited by the tank mix product label. **Note:** Do not use liquid fertilizer as the carrier when **A381.02** is applied postemergence to corn as severe injury may result. The addition of liquid fertilizers used as adjuvants with **A381.02** tank mixes applied postemergence to corn under environmental stress conditions may result in significant crop injury and should be avoided if the risk of crop injury is unacceptable.

When tank mixing, refer to the label of the tank mix product and follow additional use directions in the following table. **A381.02 can be applied to corn up to 11 inches tall.**

**Postemergence Tank Mixes (A381.02 Plus):**

<b>Tank Mix Herbicide</b>	<b>Rate</b>	<b>Comments</b>
Hornet WDG (flumetsulam and clopyralid potassium, EPA Reg. No. 5481- 678)	See label for tank mix partner rates.	<ul style="list-style-type: none"> <li>Always add NIS at 0.25% v/v or COG at 1% v/v</li> </ul>
AimEW (carfentrazone-ethyl, EPA Reg. No. 279- 3242)	See label for tank mix partner rates.	<ul style="list-style-type: none"> <li>Always add a NIS at 0.25% v/v</li> </ul>
Banvel (dicamba, dimethylamine salt, EPA Reg. No. 66330- 276) Clarity (ethaneperoxoic acid, hydrogen peroxide, EPA Reg. No. 65402-3) Marksman (atrazine and dicamba, potassium salt, EPA Reg. No. 7969-136)	See label for tank mix partner rates.	<ul style="list-style-type: none"> <li>Early postemergence up to 8 inches tall corn on all soils. If grasses are more than 2-leaf stage, combine with another herbicide to control these weeds</li> </ul>
Buctril (bromoxynil octanoate, EPA Reg. No. 264-437) Buctril/atrazine (atrazine and octanoic acid ester of bromoxynil, EPA Reg. No. 264-477) Shotgun herbicide (atrazine and 2,4-D, 2-ethylhexyl ester,	See label for tank mix partner rates.	<ul style="list-style-type: none"> <li>Refer to tank mix product labels for applicable use directions, precautions and restrictions</li> </ul>

EPA Reg. No. 34704-728)		
Atrazine	See label for tank mix partner rates.	<ul style="list-style-type: none"><li>May be applied preplant surface, preplant incorporated, preemergence or early postemergence to corn up to 8 inches tall. If emerged weeds are greater than 1.5 inches tall at the time of application, add an appropriate postemergence herbicide. <b>Note:</b> The maximum atrazine application rate per year for corn is 2 lb active if applied only postemergence or 2.5 lb active if pre- and postemergence applications are made</li></ul>
Distinct (dicamba, sodium salt and diflufenzopyr-sodium, EPA Reg. No. 7969-150)	See label for tank mix partner rates.	<ul style="list-style-type: none"><li>Always add a NIS at 0.25% v/v and 1 .25% UAN</li><li>Can be applied up to corn up to 10 inches tall</li></ul>
Exceed (prosulfuron and primisulfuron-methyl, EPA Reg. No. 100-774)	See label for tank mix partner rates.	<ul style="list-style-type: none"><li>Always add crop oil concentrate at 1 % v/v</li><li>See label for Exceed for geographic restrictions</li></ul>
Liberty (glufosinate, EPA Reg. No. 7969-447)	See label for tank mix partner rates.	<ul style="list-style-type: none"><li><b>For use on Liberty tolerant corn only.</b> Apply to grass and broadleaf weeds up to 6 inches tall. Do not add additional surfactant</li></ul>
Lightning (imazapyr and imazethapyr, EPA Reg. No. 241-377)	See label for tank mix partner rates.	<ul style="list-style-type: none"><li><b>For use on Clear-field corn only.</b> Use an NIS at 25%v/v and a liquid nitrogen fertilizer at 1 to 2 qt per acre or ammonium sulfate at 2.5 lb per acre.</li></ul>
Pendimax / Prowl (10088-76-53537)	See label for tank mix partner rates.	<ul style="list-style-type: none"><li>Apply preemergence or apply early postemergence to corn up to 3 inches tall, but before weeds are more than 1 inch tall</li></ul>
Pursuit 2.5L Pursuit 70DG	See label for tank mix partner rates.	<ul style="list-style-type: none"><li>Use only on <b>Clearfield</b> varieties.</li><li>Apply preplant incorporated, preplant surface, preemergence or early postemergence to weeds up to 3 inches tall</li></ul>
Resource (flumiclorac, EPA Reg. No. 59639-92	See label for tank mix partner rates.	<ul style="list-style-type: none"><li>Apply to weeds less than 5 inches tall. Add a crop oil concentrate at 1 to 2 pt/acre and either 28% nitrogen at 2% v/v or ammonium sulfate at 2.5 lb/acre. May cause some burns or spotting to corn leaves.</li></ul>
Spirit (primisulfuron-methyl and prosulfuron, EPA Reg. No. 100-911)	See label for tank mix partner rates.	<ul style="list-style-type: none"><li>Always add crop oil concentrate at 1% v/v</li><li>See label for Spirit for geographic restrictions</li></ul>
2,4-D Ester	See label for tank mix partner rates.	<ul style="list-style-type: none"><li>Apply preplant surface or preemergence to control emerged broadleaf weeds in corn</li></ul>
Accent 75WDG Beacon 75WDG Basis (rimsulfuron and thifensulfuron methyl, EPA Reg. No. 352-571)	See label for tank mix partner rates.	<ul style="list-style-type: none"><li>Minimum <b>A381.02</b> use rates (pt/acre): Soil   &lt;3%OM   3-7%OM   &gt;7%OM Coarse   1.5   1.5   2 Medium   1.5   1.5 - 2   2 Fine   1.5   1.5 - 2   2</li></ul>

Steadfast (nicosulfuron and rimsulfuron, EPA Reg. No. 352-608)		<ul style="list-style-type: none"><li>Always add NIS at 0.25% (v/v) and, in addition if applied under dry conditions, add 4% (v/v) clear liquid fertilizer</li><li>Banvel (dicamba, dimethylamine salt, EPA Reg. No. 66330-276), Clarity (ethaneperoxoic acid, hydrogen peroxide, EPA Reg. No. 65402-3), Marksman (atrazine and dicamba, potassium salt, EPA Reg. No. 7969-136), Buctril (bromoxynil octanoate, EPA Reg. No. 264-437), Buctril/atrazine(atrazine and octanoic acid ester of bromoxynil, EPA Reg. No. 264-477) may be added to this mixture to provide burndown and residual control of broadleaf weeds</li></ul>																
Basis Gold (atrazine, nicosulfuron, rimsulfuron, EPA Reg. No. 352-585)	See label for tank mix partner rates.	<ul style="list-style-type: none"><li>Minimum <b>A381.02</b> use rates (pt/acre): <table><tr><td>Soil</td><td>&lt;3%OM</td><td>3-7%OM</td><td>&gt;7%OM</td></tr><tr><td>Coarse</td><td>1.5</td><td>1.5</td><td>2</td></tr><tr><td>Medium</td><td>1.5</td><td>1.5 - 2</td><td>2</td></tr><tr><td>Fine</td><td>1.5</td><td>1.5 - 2</td><td>2</td></tr></table></li><li>Always add COC at 1.0% v/v or, under dry arid conditions, add COC at 2.0% v/v plus 2 qt/acre of 28% liquid nitrogen or 2 lb/acre of ammonium sulfate</li><li>Banvel (dicamba, dimethylamine salt, EPA Reg. No. 66330-276), Clarity (ethaneperoxoic acid, hydrogen peroxide, EPA Reg. No. 65402-3), Marksman (atrazine and dicamba, potassium salt, EPA Reg. No. 7969-136), Buctril (bromoxynil octanoate, EPA Reg. No. 264-437), or Tough may be added to this mixture to provide burndown and residual control of broadleaf weeds</li></ul>	Soil	<3%OM	3-7%OM	>7%OM	Coarse	1.5	1.5	2	Medium	1.5	1.5 - 2	2	Fine	1.5	1.5 - 2	2
Soil	<3%OM	3-7%OM	>7%OM															
Coarse	1.5	1.5	2															
Medium	1.5	1.5 - 2	2															
Fine	1.5	1.5 - 2	2															

## Appendix I

### Procedure for Testing the Compatibility of A381.02 and Tank Mixes with Fluid Fertilizers

Since fluid fertilizers vary, the following procedure is suggested for determining whether **A381.02** may be combined with a specific fluid fertilizer for spray tank application.

#### Materials Needed:

- A381.02** and any tank mix products
- Fluid fertilizer to be used
- Adjuvant for fertilizer tank mix: Use any adjuvant cleared for use on growing crops under 40 CFR 180.1001 to improve the compatibility of **A381.02** with fluid fertilizers. The adjuvant that provides the best emulsification depends upon the specific fertilizer under consideration.
- Two 1 quart, wide mouth glass jars with lid or stopper
- Measuring spoons (a 25 ml pipette or graduated cylinder provides more accurate measurement)
- Measuring cup, 8 oz (257 ml)

#### Procedure:

- Pour a pint (about 473 ml) of the fluid fertilizer into each of the quart jars.
- Add **A381.02** and any tank mix combination to the jars. The order of addition is wettable powders
- first with mixing, followed by flowables with mixing and the ECs last. The rate of wettable powders and dry flowables is 1 1/2 teaspoon per pound of product per acre to be applied. ECs should be added at the rate of 1/2 teaspoon for each pint per acre to be applied. Premixing the wettable powders in 1 oz of water before adding to the pint of fluid fertilizer will improve the compatibility of the final mixture.
- Add 1/2 teaspoon (2 ml) adjuvant to one of the jars, label it as "with," and mix. The rate of 1/2 teaspoon per pint is equal to 3 pints of adjuvant per 100 gallons of fluid fertilizer.

5. Close both jars with lids or stoppers and mix the contents by turning the jars upside down 10 times.
6. Inspect the surface and body of the mixtures-
  - (a) Immediately after completing the jar inversions
  - (b) After allowing the jars to stand undisturbed for 30 minutes
  - (c) And then again after turning the jars upside down 10 times after the 30 minute inspection

#### Evaluation:

If either mixture remains uniform for 30 minutes, the combination may be used. Should either mixture separate after 30 minutes, but readily remix uniformly with 10 jar inversions, the mixture can be used if adequate agitation is maintained in the tank. If the mixture with adjuvant is satisfactory but the one without adjuvant is not, be sure to use the adjuvant in the spray tank. Add the adjuvant first at a rate of 3 pints per 100 gallons of fluid fertilizer. Foaming may be minimized by using moderate agitation. **If non-dispersible oil, sludge, or clumps of solids form in the mixtures, the combination should not be used.**

## Appendix II

### Dry Bulk Fertilizer Impregnation

All individual state regulations relating to dry bulk fertilizer blending, registration, labeling, and application are the responsibility of the individual and/or company selling **A381.02**.

When applying **A381.02** alone or in tank mixes with dry bulk fertilizers, follow all directions for use and precautions on the respective tank mix product labels regarding use rates, soil texture, application methods, and rotational restrictions. Use a minimum of 200 lb of dry bulk fertilizer per acre.

### Approved Dry Fertilizer Ingredients for Use with A381.02<sup>1</sup>

Fertilizer	N	P	K
Ammonium Phosphate-Sulfate	16	20	0
Ammonium Sulfate	21	0	0
Diammonium Phosphate	18	46	0
Monoammonium Phosphate	11	56	0
Potassium Chloride	0	0	60
Potassium Sulfate	0	0	52
Urea <sup>2</sup>	45	0	0

<sup>1</sup> Do not impregnate on fertilizers containing ammonium nitrate, potassium nitrate, or sodium nitrate.

<sup>2</sup> Some areas may be phytotoxic when high rates are applied to corn. Use only urea rates known to be safe for corn application.

For impregnating pesticides on dry fertilizers, use suitable mixers equipped with suitable spraying equipment. The spray nozzles should be positioned inside the mixer to provide uniform spray coverage of the tumbling fertilizer. **A381.02** should be sprayed uniformly onto the fertilizer using a fine spray pattern. Tank mix components may be applied as separate ingredients with powders and dry flowables added first or they may be mixed in a slurry in the proper ratio and added jointly. **A381.02** may also be impregnated on dry bulk fertilizer in the field while the fertilizer is being spread using a pneumatic applicator equipped to impregnate herbicides.

The following table provides a reference to determine the amount of **A381.02** to be mixed per ton of dry bulk fertilizer for a range of herbicide rates.

Fertilizer (lb/acre)	Acres Covered (per ton)	A381.02 (pints/acre)		
		2 pt/acre	2.5 pt/acre	3 pt/acre
Pints Herbicide/Ton Fertilizer				
200	10	20	25	30
300	6.7	13.4	16.8	20.1
400	5	10	12.5	15
500	4	8	10	12
600	3.3	6.6	8.3	9.9
700	2.9	5.8	7.3	8.7

To determine the amount of **A381.02** needed for other rates of fertilizer, use this formula:

$$\begin{array}{l} \text{A381.02 (pints/acre)} \\ \text{Pounds of fertilizer/acre} \end{array} \times \begin{array}{l} 2000 \\ \end{array} = \begin{array}{l} \text{Pints of A381.02} \\ \text{per ton of fertilizer} \end{array}$$

If the herbicide/fertilizer mixture is too wet, use of a drying agent is required to provide a dry, free-flowing mixture. For mixtures to be used in spinning-disc applicators, Micro-Cel E calcium silicate powder (Manville, Filtration & Minerals) is recommended for use as a drying agent. Mixtures to be used in pneumatic applicators should use Micro-Cel E or Agsorb 16/30 RVM-MS granular clay (Oil-Dri Corporation). The drying agents should be added separately and uniformly to the prepared pesticide/fertilizer mixture, in a quantity that is sufficient to provide a suitable free-flowing mixture. Generally, less than 2% Micro-Cel E or 5% Agsorb 16/30 RVM-MS by weight is required.

**NOTE:** To avoid potential for explosion, do not impregnate **A381.02** on ammonium sorbate nitrate, potassium nitrate, or sodium nitrate fertilizer or fertilizer blends. Do not impregnate on a single (0-20-0) or triple (0-46-0) super phosphate. Do not attempt to impregnate **A381.02** on agricultural limestone as the herbicide will not be adequately absorbed.



## STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

**PESTICIDE STORAGE:** Store in a tightly closed container in a cool, dry place. Store in original container and out of reach of children, preferably in a locked storage area.

**PESTICIDE DISPOSAL:** Pesticide spray mixture or rinsate that cannot be used must be disposed of in a landfill approved for pesticides. Improper disposal of excess pesticide spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by the use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

### CONTAINER HANDLING:

**[For plastic containers ≤ 5 gallons: Nonrefillable Container:** Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple Rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by other procedures allowed by state and local authorities.]

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## LIMITATION OF WARRANTY AND LIABILITY

**IMPORTANT: READ BEFORE USE.** Read the entire Directions for Use, Conditions of Warranties and Limitations of Liability before using this product. If these terms and conditions are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following Disclaimer of Warranties and Limitations of Liability. **CONDITIONS:** The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Ineffectiveness, injury, and other unintended consequences may result because of such factors as manner of use or application (including misuse), the presence of other materials, weather conditions, and other unknown factors, all of which are beyond the control of ATTICUS, LLC. To the extent consistent with applicable law, all such risks shall be assumed by the user or buyer.

**DISCLAIMER OF WARRANTIES:** To the extent consistent with applicable law, ATTICUS, LLC makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond statements on this label. **LIMITATIONS OF LIABILITY:** To the extent consistent with applicable law, neither ATTICUS, LLC the manufacturer, nor the Seller shall be liable for any indirect, special, incidental or consequential damages resulting from the use, handling, application, storage, or disposal of this product. To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use, handling, application, or storage of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid.

**A381.02™** is a trademark of Atticus, LLC

Surpass® EC is a registered trademark of Dow AgroSciences

## {LANGUAGE ON LABEL AFFIXED TO CONTAINER}

**ACETOCHLOR****GROUP****15****HERBICIDE****A381.02™**

[Alternate Brand Names: Ventas, Ventas EC, Ventas 6.4 EC, Ventas 70.87% EC]

[Contains acetochlor, the active ingredient used in Surpass® EC.]

[For use only on field corn, production seed corn, silage corn, sweet corn and popcorn.]

**ACTIVE INGREDIENT:****(% by weight)**

Acetochlor: 2-chloro-2'-methyl-6'-ethyl-N-ethoxymethylacetanilide.....70.87%

**OTHER INGREDIENTS:**.....29.13%

**TOTAL** .....100.0%

Contains 6.4 lb of active ingredient per gallon.

### KEEP OUT OF REACH OF CHILDREN

## WARNING/AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID	
<b>If on skin or clothing:</b>	<ul style="list-style-type: none"><li>Take off contaminated clothing.</li><li>Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>Call a poison control center or doctor for treatment advice.</li></ul>
<b>If in eyes:</b>	<ul style="list-style-type: none"><li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>Call a poison control center or doctor for treatment advice.</li></ul>
<b>If swallowed:</b>	<ul style="list-style-type: none"><li>Call a poison control center or doctor immediately for treatment advice.</li><li>Have person sip a glass of water if able to swallow.</li><li>Do not induce vomiting unless told to do so by the poison control center or doctor.</li><li>Do not give anything by mouth to an unconscious person.</li></ul>
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact SafetyCall at <b>1-844-685-9173</b> for emergency medical treatment information.	

**For Chemical Emergency:**

**Spill, Leak, Fire, Exposure, or Accident, Call CHEMTREC Day or Night**  
**Within USA and Canada: 1-800-424-9300 or +1 703-527-3887 (collect calls accepted)**

### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS WARNING/AVISO

Causes skin irritation. Do not get on skin or on clothing. Harmful if swallowed. Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

**ENVIRONMENTAL HAZARDS:** This product is toxic to fish. Do not apply

directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

This chemical demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the groundwater is shallow, may result in groundwater contamination.

Acetochlor has properties that may result in surface water contamination via dissolved runoff erosion. Practices should be followed to minimize the potential for dissolved runoff and/or runoff erosion.

## STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

**PESTICIDE STORAGE:** Store in a tightly closed container in a cool, dry place. Store in original container and out of reach of children, preferably in a locked storage area.

**PESTICIDE DISPOSAL:** Pesticide spray mixture or rinsate that cannot be used should be disposed of in a landfill approved for pesticides. Improper disposal of excess pesticide spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by the use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

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See inside label booklet for additional Precautionary Statements and Directions for Use.

[A381.02™ is not manufactured, or distributed by Dow AgroSciences, seller of Surpass® EC.]

Manufactured for:

**Atticus, LLC**

5000 CentreGreen Way, Suite 100

Cary, NC 27513

**EPA Reg. No.: 91234-XX**

**EPA Est. No.:** \_\_\_\_\_

**NET WEIGHT:** \_\_\_\_\_